

WHAT IS CLAIMED IS:

1. A liquid crystal display(LCD) and fingerprint capture panel having both a data display function and a fingerprint capture function, comprising:

an LCD part and a fingerprint capture sensor arranged on the same plane, the LCD part and the fingerprint capture sensor being simultaneously arranged through the same manufacturing process; and

a backlight commonly used for the LCD part and the fingerprint capture sensor as a light source.

2. The LCD and fingerprint capture panel according to claim 1, wherein a region in which the fingerprint capture sensor is formed is smaller than a region in which the LCD part is formed, and the fingerprint capture sensor obtains a fingerprint image by a one-dimensional line scan method.

3. The LCD and fingerprint capture panel according to claim 1, wherein a driving unit for driving the LCD part and a driving unit for driving the fingerprint capture sensor are separated.

4. The LCD and fingerprint capture panel according to claim 1, wherein a driving unit for driving the LCD part and a driving unit for driving the fingerprint capture sensor are integrated into one driving unit.

5. A liquid crystal display(LCD) and fingerprint capture panel having both a data display function and a fingerprint capture function, comprising:

a backlight;

a thin film transistor(TFT) panel attached to a top of the backlight, the TFT panel including an LCD part formed in a region of the TFT panel and a fingerprint capture part formed in the remaining region of the TFT panel;

a liquid crystal element attached only to a top of the LCD part of the TFT panel; and

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a color filter attached only to a top of the liquid crystal element.

6. The LCD and fingerprint capture panel according to claim 5, further comprising a transparent protective layer, the transparent protective layer being formed on a top of the fingerprint capture part of the TFT panel so that a top surface of the fingerprint capture part and a top surface of the color filter are level.

7. The LCD and fingerprint capture panel according to claim 5, wherein the region in which the fingerprint capture part is formed is smaller than a region in which the LCD part is formed, and the fingerprint capture part obtains a fingerprint image by a one-dimensional line scan method.

8. The LCD and fingerprint capture panel according to claim 5, wherein a driving unit for driving the LCD part and a driving unit for driving the fingerprint capture part are separated.

9. The LCD and fingerprint capture panel according to claim 5, wherein a driving unit for driving the LCD part and a driving unit for driving the fingerprint capture part are integrated into one driving unit.

10. A liquid crystal display(LCD) and fingerprint capture panel having both a data display function and a fingerprint capture function, comprising:

a backlight;

a thin film transistor(TFT) panel attached to a top of the backlight and including an LCD part formed in a region of the TFT panel;

a liquid crystal element attached to a top of the LCD part of the TFT panel;

a color filter attached to a top of the liquid crystal element and extended to cover a region in which the LCD part is not formed; and

a fingerprint capture part formed in a region of the color filter covering

the region in which the LCD part is not formed.

11. The LCD and fingerprint capture panel according to claim 10, wherein a transparent protective layer is formed on a surface of the region in which the fingerprint capture part is not formed in the color filter, such that a surface of the color filter and a surface of the fingerprint capture part are leveled.

12. The LCD and fingerprint capture panel according to claim 10, wherein the region in which the fingerprint capture part is formed is smaller than the region in which the LCD part is formed, and the fingerprint capture part obtains a fingerprint image by a one-dimensional line scan method.

13. The LCD and fingerprint capture panel according to claim 10, wherein a driving unit for driving the LCD part and a driving unit for driving the fingerprint capture part are separated.

14. The LCD and fingerprint capture panel according to claim 10, wherein a driving unit for driving the LCD part and a driving unit for driving the fingerprint capture part are integrated into one driving unit.